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KNH 1001 PCT

IN THE CLAIMS:

1. (cancelled)

2. (currently amended) A process for joining components for torque transmission in a vehicle, the components being made from hardenable steel and having a material thickness, by producing a weld seam without secondary heating, comprising:

positioning a welding electrode with respect to a weld line;
applying a voltage;
supplying a plasma gas;
forming an arc; and
melting the steel in the vicinity of the weld line over the entire material thickness.

3.-12. (cancelled)

13. (new) A process according to Claim 2, wherein the hardenable steel has a material thickness in the range from approximately 2.0 mm to 10.0 mm.

14. (new) A process according to Claim 2, wherein the weld seam is of single-layer design.

15. (new) A process according to Claim 13, wherein the weld seam is of single-layer design.

16. (new) A process according to Claim 2, wherein the weld seam is a butt seam or a fillet seam.

17. (new) A process according to Claim 13, wherein the weld seam is a butt seam or a fillet seam.

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18. (new) A process according to Claim 2, wherein during the welding operation, a plasma jet is moved in the welding direction at a welding speed of at least 0.2 m/min.

19. (new) A process according to Claim 13, wherein during the welding operation, a plasma jet is moved in the welding direction at a welding speed of at least 0.2 m/min.

20. (new) A process according to Claim 2, wherein the weld seam is produced by radial circumferential welding.

21. (new) A join between at least two components for torque transmission made from hardenable steel, wherein the join comprises at least one weld seam produced by a process according to Claim 2.

22. (new) A join according to Claim 21, wherein at least one of the components is a hollow shaft with a wall thickness in the range from approximately 2.0 mm to 10.0 mm.

23. (new) A join according to Claim 18, wherein at least one of the components is a hollow shaft with a wall thickness in the range from approximately 2.0 mm to 10.0 mm.

24. (new) A join according to Claim 21, wherein the join and adjoining subregions of the components are essentially free of cracks.

25. (new) A join according to Claim 22, wherein the join and adjoining subregions of the components are essentially free of cracks.

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26. (new) A join according to one of Claim 21, comprising a ductility in the range from about 250 HV to 650 HV.

27. (new) A vehicle comprising an engine with a drive system, wherein the drive system includes components for torque transmission, and at least two components have been welded to one another by a process according to Claim 2.

28. (new) A vehicle comprising an engine with a drive system, wherein the drive system includes components for torque transmission, and at least two components have been welded to one another by a process according to Claim 18.

29. (new) A vehicle comprising at least two components made form hardenable steel and connected by a join comprising a weld seam produced by a process according to Claim 2.

30. (new) A vehicle comprising at least two components made form hardenable steel and connected by a join comprising a weld seam produced by a process according to Claim 18.